

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis 3(c) and 72.2)

To:

KÖRFER, Thomas
Mitscherlich & Partner
Postfach 33 06 09
80066 München
ALLEMAGNE

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11. OKT. 2006

Mitscherlich & Partner
Patent- u. Rechtsanwälte

Date of mailing (day/month/year) 05 October 2006 (05.10.2006)	
Applicant's or agent's file reference P28753/WO Kf	IMPORTANT NOTIFICATION
International application No. PCT/EP2004/011352	International filing date (day/month/year) 11 October 2004 (11.10.2004)
Applicant ROHDE & SCHWARZ GMBH & CO. KG et al	

1. Transmittal of the translation to the applicant.



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

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The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

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3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

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The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Agnes Wittmann-Regis
Facsimile No. +41 22 338 82 70	Facsimile No. +41 22 338 82 70

TRANSLATION**PATENT COOPERATION TREATY****PCT****INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P28753/WO Kf	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No PCT/EP2004/011352	International filing date (day/month/year) 11.10.2004	Priority date (day/month/year) 27.10.2003
International Patent Classification (IPC) or national classification and IPC G01R19/00, G01R31/00, G01R29/08		
Applicant ROHDE & SCHWARZ GMBH & CO. KG		

1	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36	
2	This REPORT consists of a total of <u>8</u> sheets, including this cover sheet.	
3	This report is also accompanied by ANNEXES, comprising: a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>2</u> sheets, as follows: <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____ containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).	
4	This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application	

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No

PCT/EP2004/011352

Box No. 1

Basis of the report

- 1 With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item
- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
- 2 With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-11 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos. * _____ as amended (together with any statement) under Article 19
- nos. * 1-6 _____ received by this Authority on 27.01.2006 with letter
- nos. * _____ received by this Authority on of 27.01.2006
- ☒ the drawings:
- sheets 1/3-3/3 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
- 3 ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
- 4 ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/011352

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	<u>1-6</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-6</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-6</u>	YES
	Claims		NO
2 Citations and explanations (Rule 70.7)			
1. This report makes reference to the following documents:			
D1: US-B-6509742 (Ebizuka <i>et alia</i>), 21 January 2003			
D2: US-A-4859933 (Taylor <i>et alia</i>), 22 August 1989			
D3: US-B-6268738 (Gunthorpe <i>et alia</i>), 31 July 2001			
D4: DD-A-283869 (Rhode & Schwarz GmbH), 27 October 1983			
2. Novelty			
2.1 Claim 1			
2.1.1 Document D1 discloses a method for measuring radio interference levels in a particular frequency range (<i>cf. column 3, lines 23-45</i>) in that tuning is carried out during a preliminary measurement of the frequency range (<i>cf. column 3, lines 23-27, and also figure 1, "Spectrum Analyzer" (16)</i>), the measured level of the signal being measured is sensed at each measurement frequency (<i>cf. column 3, lines 23-24, "...measures the peak field intensity..."</i>) and compared with a threshold value (<i>cf. column 3, lines 33-36, "...at which the peak field intensity exceeds a predetermined</i>			

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threshold...", "the peak field intensity" being measured by a spectrum analyser (cf. column 3, lines 23-27)), and when the threshold value is exceeded by the measured level, the level measured at the corresponding measurement frequency is identified as a radio interference level (cf. column 3, lines 33-36, "The pre-set frequency refers to...", thus this frequency must be retained and identified); in a post-measurement step (cf. column 3, line 28, "The quasi-peak measuring section...at a pre-set frequency (a specific frequency determined in advance)..."), each identified radio interference level is more precisely measured to pinpoint its variation in time (see observation 1), the centre frequency (cf. column 3, lines 28-30, "The quasi-peak measuring section measures...at a pre-set frequency", the "pre-set frequency" representing the centre frequency, cf. also figure 12, step 610) of the measurement frequency range used during post-measurement being reset to the centre frequency of the changing radio interference level newly determined during the preceding preliminary measurement (cf. column 3, lines 28-37) for each of the identified radio interference levels (see observation 2 below).

Observation 1: In D1, column 4, lines 5-19, the behaviour of measured signal forms measured at different points in time is analysed ("...compare a waveform...with a waveform...").

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citations and explanations supporting such statement

Observation 2: D1 (cf. column 3, lines 23-62) indicates that a preliminary measurement is first carried out (cf. column 3, lines 23-27), then a post-measurement is carried out for a peak which exceeds a threshold value (cf. column 3, lines 28-45). An error message is issued when the post-measurement result (QP measurement) deviates too strongly from the preliminary measurement result (peak field intensity measuring) (cf. column 3, lines 46-62). Consequently, post-measurement is carried out for **each** identified radio interference level.

2.1.2 The subject matter of claim 1 differs from D1 by the following features:

- post-measurement is **cyclically** repeated in alternation with the preliminary measurement,
- the centre frequency is traced **for determining the frequency drift**.

2.1.3 Unlike in claim 1, in the method described in D2 there is no separation between preliminary measurement and post-measurement, but rather the repeated measurement of the individual intensity levels over the entire frequency range (cf. column 3, lines 1-43). The object of D2 is to determine whether two signals measured at different points in time represent the same signal (cf. column 3, lines 5-9). The subject matter of claim 1 thus differs from D2 by **at least** the following features:

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	<ul style="list-style-type: none">• post-measurement is cyclically repeated in alternation with the preliminary measurement;• the centre frequency of the post-measurement is traced for determining the frequency drift. <p>2.1.4 In D3, only the peak values which exceed a minimal value and enclose a particular surface in a window (cf. column 5, lines 33-37) are taken into account for post-measurement. The subject matter of claim 1 thus differs from D3 by the following features:</p> <ul style="list-style-type: none">• all "measured levels of the signal being measured" are compared with the threshold value;• the centre frequency is traced for determining the frequency drift. <p>2.1.5 In D4, preliminary measurement is interrupted when a signal level is exceeded and post-measurement is carried out (cf. page 1, antepenultimate paragraph). Moreover, post-measurements are carried out only when the maximum and minimum voltage values have different intensities (cf. page 1, penultimate paragraph). The subject matter of claim 1 thus differs from D4 by the following features:</p> <ul style="list-style-type: none">• post-measurement is cyclically repeated in alternation with the preliminary measurement;• all measured levels of the signal being measured are compared with a threshold value;

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- the centre frequency is traced for determining the frequency drift.

2.1.6 The subject matter of claim 1 is thus novel and meets the requirements of PCT Article 33(2).

2.2 Claim 6

Claim 6 relates to a device equipped to implement all the features of claim 1. The subject matter of claim 6 is thus also novel and meets the requirements of PCT Article 33(2).

2.3 Claims 2-5 are dependent claims and thus likewise meet the requirements of PCT Article 33(2).

3. Inventive step

3.1 Claim 1

3.1.1 The effect of this feature, which goes beyond D1, is that of tracing the variation in time of the radio interference level in a quasi-continuous manner, permitting the frequency drift of the radio interference level to be determined.

3.1.2 The technical problem addressed can thus be considered to be that of developing the method described in D1 in such a way that the variation in time of the radio interference level can be traced in a quasi-continuous manner, permitting the frequency drift of the radio interference level to be determined.

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3.1.3	D1 does not suggest any reason to trace the frequency drift of the radio interference level in time. Nor does it give any reason to repeat cyclically the post-measurement in alternation with the preliminary measurement. A combination of D1 with one of the documents D2-D4 would also fail to lead to a solution as described in claim 1.
3.1.4	The subject matter of claim 1 thus involves an inventive step (PCT Article 33(3)).
3.2	<p>Claim 6</p> <p>Claim 6 relates to a device equipped to implement all the features of claim 1. The subject matter of claim 6 thus also involves an inventive step (PCT Article 33(3)).</p>
3.3	Claims 2-5 are dependent claims and thus likewise meet the requirements of PCT Article 33(3).
4.	<p>Industrial applicability</p> <p>The subject matter of the above-mentioned claims meets the requirements of PCT Article 33(4).</p>